

Permit with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Vital Energi Utilities Limited

Mersey Biochar
Mere Business Park
Great Sankey
Warrington
Cheshire
WA5 3UZ

Permit number

EPR/PP3526SN

Permit number EPR/PP3526SN

Introductory note

This introductory note does not form a part of the permit

This permit will allow the operator to operate:

- One or more medium combustion plant (MCP) between 1 and <50MWth but aggregated to <50MWth, and/or

The details of the units and associated limits and monitoring requirements are specified in Tables S1.1 and S3.1.

This is a simple permit and air dispersion modelling was not required.

The facility consists of a new MCP with a rated thermal input of 2.472MWth. The MCP is a furnace that is primarily fuelled on non-waste solid biomass with natural gas used for start-up, shut-down and idling. The plant will operate for 8,760 hours (up to 500 hours on natural gas) and discharge to air via a dedicated 14m stack. In addition, there is a 10m emergency release stack which falls outside the Medium Combustion Plant Directive (MCPD) so is not included in this permit.

The furnace is fitted with a Compressed Air Energy Storage (CAES) system which stores energy as compressed air before discharging it as heat into a network and electricity to the grid. As the CAES is not vital to the combustion process the plant does not class as a specified generator. The plant is also fitted with a thermal oxidizer to filter gases which is exempt from the MCPD as it is a post-combustion process.

The site is located to the north-west of Great Sankey centred on grid reference SJ 55467 90142. The area is predominantly rural with some industrial and residential sites in the vicinity. There are no European sites or Sites of Special Scientific Interest (SSSI) within the relevant screening distances.

We consider that in reaching our decision to grant a permit/vary the permit we have taken into account all relevant considerations and legal requirements. We are satisfied that the permit will ensure that a high level of protection is provided for the environment and human health and that the activities will not give rise to any significant pollution of the environment or harm to human health.

The status log of the permit sets out the permitting history, including any changes to the permit reference number.

Status log of the permit		
Description	Date	Comments
Application EPR/PP3526SN/A001	Duly made 15/02/2024	Bespoke application for MCP(s) and/or Specified Generators.
Additional information received	13/05/2024	Confirmation of operating hours.
Permit determined EPR/PP3526SN	21/05/2024	Permit issued to Vital Energi Utilities Limited.

End of introductory note

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/PP3526SN

The Environment Agency hereby authorises, under regulation 13 of the Environmental Permitting (England and Wales) Regulations 2016

Vital Energi Utilities Limited ("the operator"),

whose registered office is

Century House

Roman Road

Blackburn

Lancashire

BB1 2LD

company registration number 04050190

to operate one or more Medium Combustion Plant and/or Specified Generators at

Mersey Biochar

Mere Business Park

Great Sankey

Warrington

Cheshire

WA5 3UZ

to the extent authorised by and subject to the conditions of this permit.

Name	Date
Beccy Brough	21/05/2024

Authorised on behalf of the Environment Agency

Conditions

1 Management

1.1 General management

- 1.1.1 The operator shall manage and operate the activities:
- (a) in accordance with a written management system that identifies and minimises risks of pollution, so far as is reasonably practicable, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and
 - (b) using sufficient competent persons and resources.
- 1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.
- 1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.

2 Operations

2.1 Permitted activities

- 2.1.1 The operator is only authorised to carry out the activities specified in schedule 1, table S1.1 (the “activities”).

2.2 The site

- 2.2.1 No MCP shall be operated beyond the site of the grid reference specified for it in schedule 1, table S1.1 of the permit.

2.3 Operating techniques

- 2.3.1 The activities shall be operated using the techniques and in the manner described in schedule 1, table S1.2A.

3 Emissions and monitoring

3.1 Emissions to water, air or land

- 3.1.1 There shall be no point source emissions to air except from the sources and emission points listed in schedule 3, table S3.1.
- 3.1.2 The limits given in schedule 3 shall not be exceeded.
- 3.1.3 For the following activities referenced in schedule 1, table S1.1. Limited Operating Hours MCPs shall:
- (a) Not exceed 500 hours operation in a 12 month period as a rolling average over a 3 year period, for new MCPs and thereafter assessed annually.
 - (b) Not operate for more than 750 hours in any single year.

3.2 Monitoring

- 3.2.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit, or at a greater frequency if notified to the operator in writing by the Environment Agency:
- (a) point source emissions specified in table S3.1.
- 3.2.2 Monitoring shall not take place during periods of start up or shut down.
- 3.2.3 For new MCPs the first monitoring measurements shall be carried out within 4 months of the issue date of the permit or the date when the MCP is first put into operation, whichever is later. For existing MCPs the first monitoring measurement shall be carried out at any time, but no later than the relevant compliance date.
- 3.2.4 The operator shall maintain records of all monitoring including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, test and surveys and any assessment or evaluation made on the basis of such data.
- 3.2.5 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme specified in condition 3.2.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency

4 Information

4.1 Records

- 4.1.1 All records required to be made by this permit shall:
- (a) be legible;
- (b) be made as soon as reasonably practicable;
- (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
- (d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made.
- 4.1.2 The operator shall maintain convenient access, in either electronic or hard copy, to the records, plans and management system required to be maintained by this permit.
- 4.1.3 The operator shall maintain a record of the type and quantity of fuel used and the total annual hours of operation for each MCP and/or generator.
- 4.1.4 The operator shall maintain a record of any events of non-compliance and the measures taken to ensure compliance is restored in the shortest possible time.

4.2 Reporting

- 4.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.
- 4.2.2 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:
- (a) in respect of the parameters and emission points specified in schedule 4, table S4.1;
- (b) for the reporting periods specified in schedule 4, table S4.1 and using the forms specified in schedule 4, table S4.2; and
- (c) giving the information from such results as required by the forms specified in those tables.

4.3 Notifications

4.3.1 In the event:

- (a) of a breach of any of the permit conditions the operator must immediately—
 - (i) inform the Environment Agency, and
 - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
- (b) of a breach of any of the permit conditions which causes a significant degradation of local air quality, the operator must immediately suspend the operation of the activities or the relevant part of them until compliance with the conditions has been restored.

4.3.2 Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.

4.3.3 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.

4.3.4 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

- (a) any change in the operator's trading name, registered name or registered office address; and
- (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

Where the operator is a corporate body other than a registered company:

- (c) any change in the operator's name or address; and
- (d) any steps taken with a view to the dissolution of the operator.

In any other case:

- (e) the death of any of the named operators (where the operator consists of more than one named individual);
- (f) any change in the operator's name(s) or address(es); and
- (g) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.

4.4 Interpretation

4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.

4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "immediately", in which case it may be provided by telephone.

Schedule 1 – Operations

Table S1.1 activities				
National Grid Reference and or activity reference/ emission point	Activity listed in the EP Regulations	Description of MCP and/or specified generator	Fuel	Operating hours limit per year
Furnace NGR SJ 55456 90139	Schedule 25A – MCP as detailed in Schedule 7	1 x 2.472MWth furnace	Solid biomass	Not restricted
			Natural gas	Less than 500 hours

Table S1.2 Operating techniques for Medium Combustion Plant as detailed in Schedule 7
(a) Each MCP must be operated in accordance with the manufacturer's instructions and records must be made and retained to demonstrate this. (b) The operator must keep periods of start-up and shut-down of each MCP as short as possible. (c) There must be no persistent emission of 'dark smoke' as defined in section 3(1) of the Clean Air Act 1993. (d) A Limited Operating Hours MCP which is an excluded generator may only be operated for the sole purpose of maintaining power supply to a site during an on-site emergency and it may not participate in any balancing services. (e) A Limited Operating Hours MCP which is an excluded generator may only be operated for the sole purpose of testing no more than 50 hours a year.

Schedule 2 – Waste types, raw materials and fuels

This schedule is not used

Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	Source/technology	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method Note 1
Furnace	New medium combustion plant other than engines and gas turbines fuelled on solid biomass.	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	500 mg/Nm ³	In line with web guide: Monitoring stack emissions: low risk MCPs and specified generators Published 20 March 2024	Every 3 years	In line with web guide: Monitoring stack emissions: low risk MCPs and specified generators Published 20 March 2024
		Sulphur dioxide	No limit set	In line with web guide: Monitoring stack emissions: low risk MCPs and specified generators Published 20 March 2024	Every 3 years	In line with web guide: Monitoring stack emissions: low risk MCPs and specified generators Published 20 March 2024
		Dust	50 mg/Nm ³	Periodic	Every 3 years	MCERTS BS EN 13284-1
		Carbon monoxide	No limit set	In line with web guide: Monitoring stack emissions: low risk MCPs and specified generators Published 20 March 2024	Every 3 years	In line with web guide: Monitoring stack emissions: low risk MCPs and specified generators Published 20 March 2024
Note 1:						

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	Source/technology	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method Note 1
Monitoring requirements are defined at a temperature of 273.15 K, a pressure of 101.3 kPa and after correction for the water vapour content of the waste gases at a standardised O ₂ content of 6% for solid fuels, 15% for engines and gas turbines and 3% all other MCPs						

Schedule 4 – Reporting

Parameters, for which reports shall be made, in accordance with conditions of this permit, are listed below.

Table S4.1 Reporting of monitoring data			
Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Emissions to air Parameters as required by condition 3.2.1.	Furnace	Every 3 years	1 January

Table S4.2 Reporting forms		
Media/parameter	Reporting format	Date of form
Air	Emissions to Air Reporting Form or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021

Schedule 5 – Notification

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

Part A

Permit Number	
Name of operator	
Location of Facility	
Time and date of the detection	

(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution	
To be notified within 24 hours of detection	
Date and time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident.	

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherwise specified below	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherwise specified below	
Measures taken, or intended to be taken, to stop the emission	

Time periods for notification following detection of a breach of a limit	
Parameter	Notification period

(c) Notification requirements for the breach of permit conditions not related to limits	
To be notified within 24 hours of detection	
Condition breached	
Date, time and duration of breach	
Details of the permit breach i.e. what happened including impacts observed.	
Measures taken, or intended to be taken, to restore permit compliance.	

(d) Notification requirements for the detection of any significant adverse environmental effect	
To be notified within 24 hours of detection	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

Part B – to be submitted as soon as practicable

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	

Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	
The dates of any unauthorised emissions from the facility in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of the operator

Schedule 6 – Interpretation

“accident” means an accident that may result in pollution.

“application” means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

“authorised officer” means any person authorised by the Environment Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

“EP Regulations” means The Environmental Permitting (England and Wales) Regulations SI 2016 No.1154 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

“first put into operation” means that the plant must have been fired with its design fuel up to its full load. This can be, but does not have to be, during commissioning.

“MCERTS” means the Environment Agency’s Monitoring Certification Scheme.

“medium combustion plant” or “MCP” means a combustion plant with a rated thermal input equal to or greater than 1 MW but less than 50 MW.

“Medium Combustion Plant Directive” or “MCPD” means Directive 2015/2193/EU of the European Parliament and of the Council on the limitation of emissions of certain pollutants into the air from medium combustion plants, as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

“new MCP” means an MCP first put into operation on or after 20/12/2018.

“operating hours” means the time, expressed in hours, during which a combustion plant is operating and discharging emissions into the air, excluding start-up and shut-down periods.

“quarter” means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

“year” means calendar year ending 31 December.

Schedule 7 – Annex 1 of MCPD

1. Rated thermal input (MW) of the medium combustion plant.	2.472MWth
2. Type of the medium combustion plant (diesel engine, gas turbine, dual fuel engine, other engine or other medium combustion plant).	Furnace
3. Type and share of fuels used according to the fuel categories laid down in Annex II.	Biomass Natural gas (Limited operating, only during start-up, shut-down and idling)
4. Date of the start of the operation of the medium combustion plant or, where the exact date of the start of the operation is unknown, proof of the fact that the operation started before 20 December 2018.	22/07/2024
5. Sector of activity of the medium combustion plant or the facility in which it is applied (NACE code).	G46.7.1
6. Expected number of annual operating hours of the medium combustion plant and average load in use.	8,760 at 100%
7. Where the option of exemption under Article 6(3) or Article 6(8) is used, a declaration signed by the operator that the medium combustion plant will not be operated more than the number of hours referred to in those paragraphs.	N/A
8. Name and registered office of the operator and, in the case of stationary medium combustion plants, the address where the plant is located.	Company and registered office: Vital Energi Utilities Limited Century House Roman Road Blackburn Lancashire BB1 2LD Site: Mersey Biochar Mere Business Park Great Sankey Warrington Cheshire WA5 3UZ

END OF PERMIT